

PTO/SB/97 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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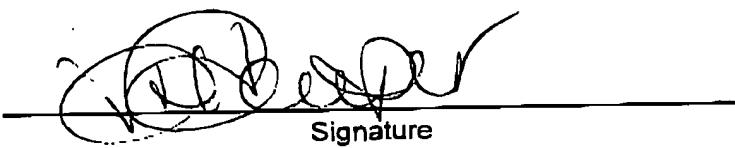
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on March 13, 2003

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09/965,086
FO6005 US NA
Amendment and Response
Petition for Extension of Time
Fee Transmittal

MAR 13 2003

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PTO/SB/17 (01-03)

Approved for use through 04/30/2003. OMB 0651-0032
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FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**930.00**

Complete if Known

Application Number	09/985086
Filing Date	September 27, 2001
First Named Inventor	JUNICHIRO FUJITA ET. AL.
Examiner Name	Daniel E. Valencia
Art Unit	2872
Attorney Docket No.	FO6005 US NA

METHOD OF PAYMENT (check all that apply)

 Check Credit card Money Order Other None
 Deposit Account:

Deposit Account Number	04-1928
Deposit Account Name	E. I. du Pont de Nemours and Company

The Commissioner is authorized to: (check all that apply)

-
- Charge fee(s) indicated below
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- Credit any overpayments
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-
- Charge any additional fee(s) during the pendency of this application
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-
- Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 280	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)		(\$)	0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid
			-20** =	X 18.00	
			-3** =	X 84.00	
		YES		280.00	

Large Entity	Small Entity	Fee Description
Fee Code (\$)	Fee Code (\$)	
1202 18	2202 9	Claims in excess of 20
1201 84	2201 42	Independent claims in excess of 3
1203 280	2203 140	Multiple dependent claim, if not paid
1204 84	2204 42	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)		(\$)

**or number previously paid, if greater; For Reissues, see above

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 485	Extension for reply within third month	930.00
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 180	Notice of Appeal	
1402 320	2402 180	Filing a brief in support of an appeal	MAR 13 2001
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use petition	TECHNOLOGY CENTER 2800
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,300	2453 650	Petition to revive - unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 160	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	
Other fee (specify)			
Reduced by Basic Filing Fee Paid			
SUBTOTAL (3)		(\$)	930.00

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	BARBARA C. SIEGELL	Registration No. (Attorney/Agent)	30,684	Telephone	(302) 992-4931
Signature	<i>Barbara C. Siegell</i>			Date	March 13, 2003

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of: Junichiro Fujita et al

CASE NO. 6005

SERIAL NO. 09/965,096

GROUP ART UNIT: 1713

FILED: September 27, 2001

EXAMINER: Daniel E. Valencia

FOR: POLARIZATION INDEPENDENT WAVEGUIDE
OPTICAL ISOLATOR AND CIRCULATOR

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SEP 29 2003

OFFICE OF PETITIONS

FAX RECEIVEDAssistant Commissioner for Patents
Washington, D.C. 20231

MAR 13 2003

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Sir:

AMENDMENT AND RESPONSE

This is in response to the office action mailed on September 13, 2002. A request for a three month extension to respond and fee accompany this response.

AMENDMENT

Please cancel: Claims 1-21.

22. (amended herein) A polarization independent optical isolator/circulator based on a nonreciprocal phase shifter comprising:

first and second Mach-Zehnder waveguide interferometers, each having an input port and an output port, and each one having two interferometer arms, with nonreciprocal phase shifters in the interferometer arms;

said phase shifters comprising a plurality of half-wave retarders or quarter wave retarders; and one or more Faraday rotators with a total rotation of 45°, wherein the slow axes of the retarders are either parallel or perpendicular to each other so that with phase or power compensation between the two paths by either active or passive means, a light that enters through one of the input ports is split in the first interferometer into two linearly polarized components and recombined into one of the output ports in the second interferometer.

23. (amended herein) The polarization independent optical isolator/circulator of Claim 22 wherein is disposed in one path of each interferometer a half-wave retarder.